Nonmetro Areas Fall Behind in the "New Economy"

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Nonmetro jobs and earnings continued to climb during the 1990s as rural areas enjoyed the effects of the strong national economy. However, nonmetro growth in jobs and earnings was not as fast as metro growth. Service- and technology-based industries that drove the economic expansion of recent years saw nearly all of their growth occur in urban areas, largely leaving rural areas out of the expanding "new economy."

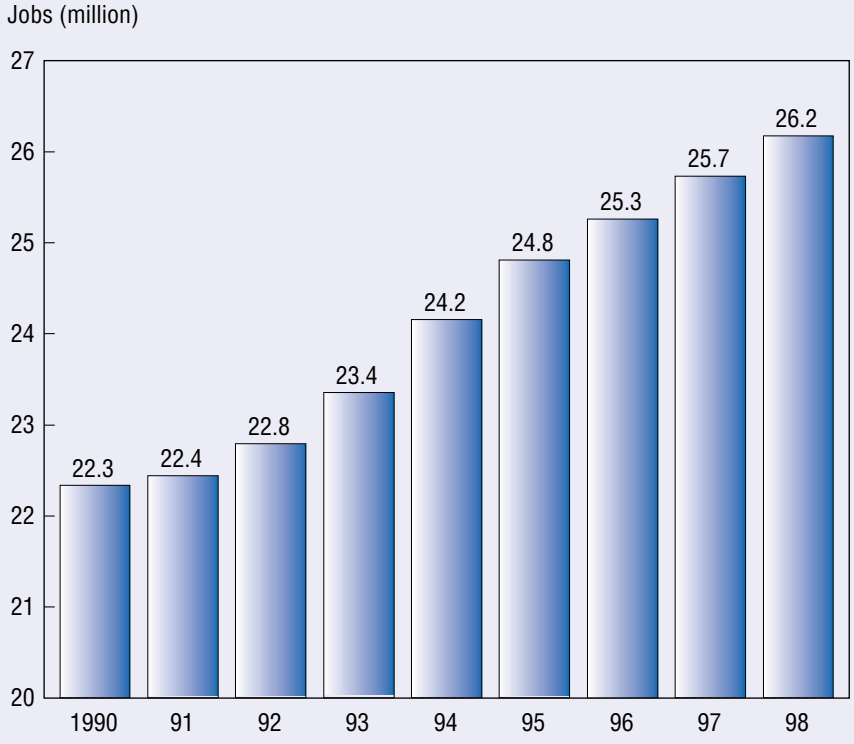
Recent Rural Trends

The most recent data from the Bureau of Economic Analysis show that nonfarm employment in nonmetro areas reached 26,179,000 in 1998, up 1.7 percent from 25,730,000 in 1997 (fig. 1). Nonmetro employment grew steadily following the end of the last recession in 1991, adding an average of 467,000 jobs annually from 1992 to 1998. Following the national trend, the greatest job growth was in the services industry, followed by retail trade (table 3). The only major nonfarm sectors to lose employment in 1998 were mining and Federal Government. Nonmetro employment grew in all regions of the country, with annual growth rates ranging from 2.6 percent in the Rocky Mountain region to 1.3 percent in the Far West (see "Regions," p. 52).

While nonmetro growth in jobs and earnings was healthy from 1995 to 1998, growth was even faster in metro areas. From 1990 to 1995, nonmetro job growth outpaced metro growth, peaking in 1994 at 3.5 percent. But after 1995, nonmetro job growth slowed to less than 2 percent annually through 1998. Metro employment continued to grow about 2.5 percent annually, and surged 2.7 percent in 1998, a full percentage point higher than the nonmetro rate of growth (fig. 2).

Nonmetro earnings fell further behind metro earnings in 1998 (fig. 3). While real nonmetro earnings per nonfarm job grew 2.4 percent during 1997-98 (the second consecutive year of strong growth), metro

Figure 1
Nonmetro nonfarm employment, 1990-98
Nonmetro job growth was steady from 1992 to 1998



Source: ERS analysis of Bureau of Economic Analysis data.

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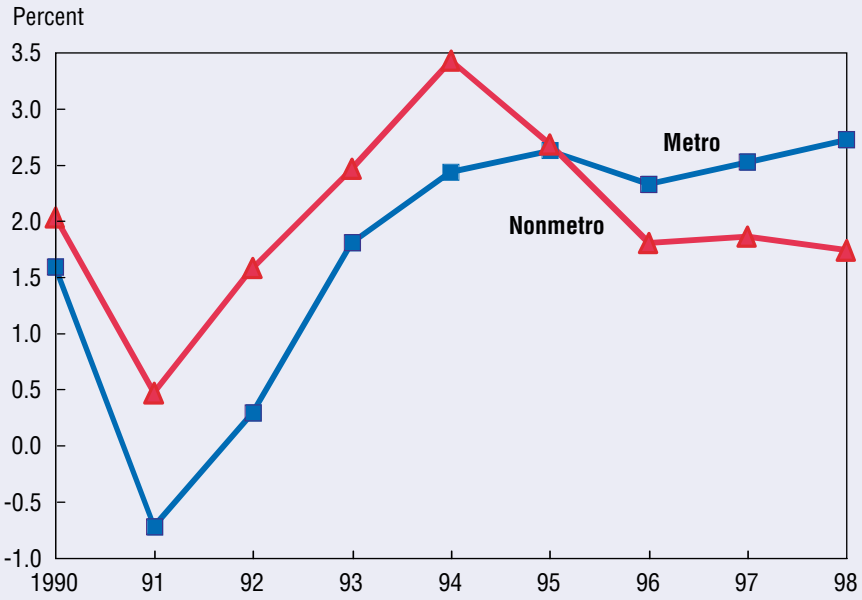
Figure 2
Metro and nonmetro nonfarm job growth, 1990-98
Nonmetro job growth lagged metro growth during 1996-98



Source: ERS analysis of Bureau of Economic Analyis data.

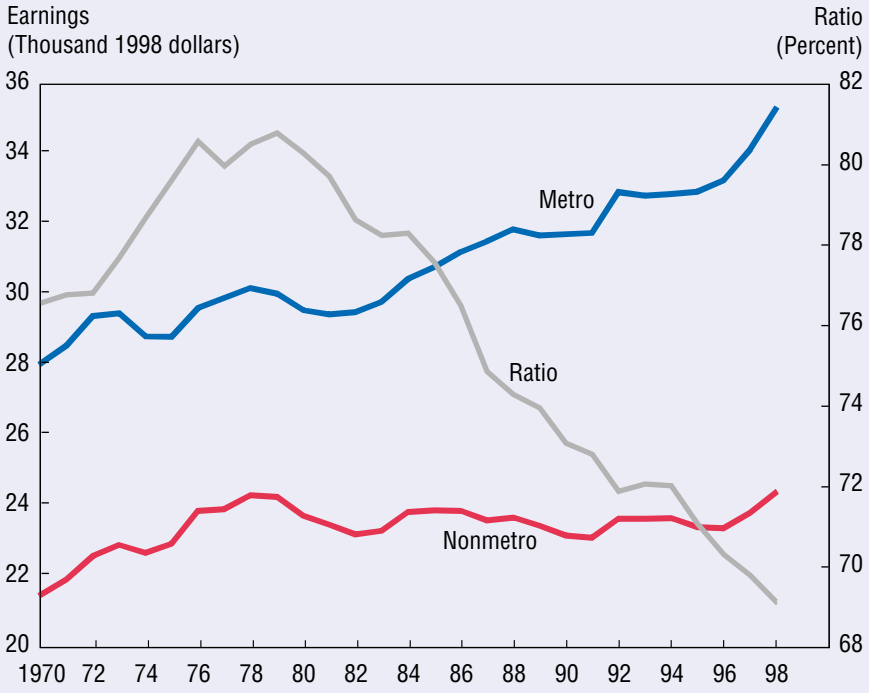
More and more, U.S. industries must rely on innovation, information, knowledge, and new technology for their competitive advantage in both domestic and foreign markets. Basic commodities and "old economy" products made by unskilled and semi-skilled workers can often be bought more cheaply from overseas competitors. At the same time, many companies have sought cost efficiencies by automating production and outsourcing many functions (such as accounting, market analysis, data processing, and software development) that had previously been performed internally. These developments have led to explosive growth in the "producer services" sector that includes communications, finance and insurance, legal, accounting, temporary employment services,

earnings growth was even stronger, at 3.4 percent. Prior to 1996-98, there had been no sustained growth in real nonmetro earnings per job since the 1970s. The $24,399 average earnings per job for 1998 was almost identical to the 1978 average of $24,322 (in 1998 dollars). The metro-nonmetro earnings gap grew from $5,893 per job in 1978 to $10,900 in 1998, the highest inflation-adjusted gap since the data series began in 1969. The average nonmetro job paid only 69.1 percent of the average metro job's pay, also an historical low.

Are Rural Areas Sharing in the New Economy?

One explanation for the growing wage gap between rural and urban jobs could be the failure of nonmetro areas to fully participate in the knowledge- and technology-based "new economy" that many observers credit for the U.S. economic expansion during the 1990s.

Figure 3
Real earnings per nonfarm job, metro and nonmetro counties, 1970-98
The metro-nonmetro earnings gap widened during the 1990s



Source: ERS analysis of Bureau of Economic Analysis data.

Table 1
Industry shares of metro and nonmetro earnings growth, 1995-98

Metro	Percent	Nonmetro	Percent
Producer services	41.0	Consumer services	28.2
Consumer services	19.7	Government and related	15.2
Transportation, utilities, and wholesale	11.2	Producer services	13.6
Manufacturing	8.9	Manufacturing	12.7
Construction	7.5	Construction	10.1
Government and related	5.8	Transportation, utilities, and wholesale	9.9
Recreation	3.8	Agriculture, forestry, fishing	5.7
Mining	1.1	Recreation	4.4
Agriculture, forestry, fishing	1.0	Mining	0.2

Source: ERS analysis of Bureau of Economic Analysis data.

computer-related, security, advertising, consulting, and similar service businesses whose customers are usually other businesses. Manufacturers are reducing their requirements for workers with "old economy" skills (mechanical ability, physical strength, ability to operate machines or equipment) by automating repetitive tasks on shop floors. High-paying jobs in "new economy" sectors rely on knowledge, information gathering and processing, and decisionmaking.

Producer Services Explosion Misses Rural America

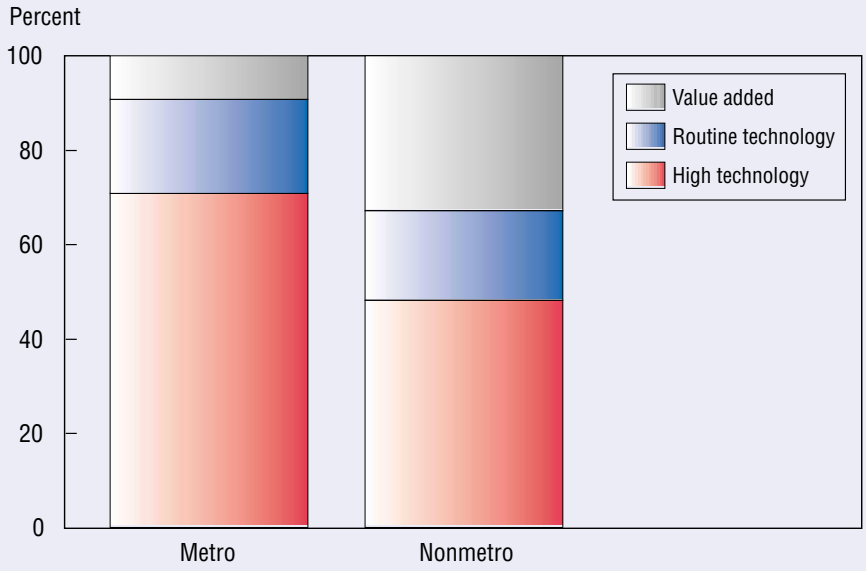
Much of national earnings growth during the 1990s was in "new economy" producer services industries, but nearly all of that growth was in urban areas. Metro earnings from producer services industries grew 9 percent annually between 1995 and 1998. Producer services were by far the largest contributor to metro earnings growth, accounting for 41 percent of the 1995-98 increase in metro earnings.

In nonmetro areas, producer service earnings grew 6 percent annually from 1995 to 1998, faster than any other nonmetro sector but only two-thirds of the metro rate. The sector is also relatively small in nonmetro areas and, with a slower rate of growth and a smaller base on which to build, producer services accounted for only 13.6 percent of 1995-98 nonmetro earnings growth, much less than in metro areas (table 1). In nonmetro areas, producer services were the third-largest contributor to earnings growth, following consumer services (28 percent, including health services, personal services, and retail trade), and government (15 percent, including schools and educational institutions, State and local government, prisons and other institutions, Federal agencies, and military personnel). While rural areas have 20 percent of the U.S. population and about 13 percent of total earnings, they captured only 4 percent of the national growth in producer services during 1995-98. Few of the highly paid managerial and professional jobs created by the sector during the 1990s were located in rural areas.

Rural Areas Lag in High-Tech Manufacturing

While producer services are gaining in importance, manufacturing is still important to rural areas. In 1998, manufacturing contributed 22.3 percent of all nonmetro earn-

Figure 4
Shares of manufacturing earnings growth by type of industry, nonmetro and metro counties, 1995-98
Metro manufacturing is more high-tech than is nonmetro manufacturing



Source: ERS analysis of Bureau of Economic Analysis data.

Table 2

Growth in real earnings by manufacturing industry and type, metro and nonmetro counties, 1995-98

Metro industry	Type[1]	Earnings growth	Nonmetro industry	Type[1]	Earnings growth
		1,000 dollars			*1,000 dollars*
Industrial machinery and equipment	HT	13,131,205	Industrial machinery and equipment	HT	1,858,421
Electronic and electrical equipment	HT	12,790,681	Food and kindred products	VA	1,214,050
Instruments and related products	HT	5,650,680	Lumber and wood products	VA	1,199,617
Other transportation equipment	HT	4,867,399	Fabricated metal products	R	1,085,888
Chemicals and allied products	HT	4,813,878	Rubber and misc. plastics products	R	718,457
Printing and publishing	HT	4,777,710	Primary metal industries	R	514,070
Fabricated metal products	R	3,407,230	Furniture and fixtures	R	440,716
Food and kindred products	VA	2,878,193	Other transportation equipment	HT	439,733
Rubber and misc. plastics products	R	2,715,900	Chemicals and allied products	HT	332,520
Stone, clay, and glass products	R	2,094,042	Printing and publishing	HT	325,515
Furniture and fixtures	R	1,792,937	Electronic and electrical equipment	HT	314,686
Lumber and wood products	VA	1,788,854	Stone, clay, and glass products	R	282,790
Miscellaneous manufacturing	R	1,116,518	Paper and allied products	VA	281,803
Primary metal industries	R	796,849	Instruments and related products	HT	225,808
Paper and allied products	VA	581,110	Motor vehicles and equipment	HT	203,280
Petroleum and coal products	HT	337,267	Miscellaneous manufacturing industries	R	125,048
Tobacco products	VA	-25,082	Petroleum and coal products	HT	-3,822
Textile mill products	R	-110,099	Tobacco products	VA	-43,453
Leather and leather products	VA	-190,083	Leather and leather products	VA	-142,692
Apparel and other textile products	R	-692,497	Textile mill products	R	-380,046
Motor vehicles and equipment	HT	-7,015,522	Apparel and other textile products	R	-1,330,827
Total manufacturing		55,507,170	Total manufacturing		7,661,561

Note: Industries correspond to 2-digit SIC codes, except for motor vehicles and equipment (SIC 371) and nonmotor vehicle equipment (SIC 37, exc. 371). Industries are sorted by earnings growth.
[1]Type of manufacturing industry: HT = high-technology; VA = value-added; R = routine technology.
Source: ERS analysis of Bureau of Economic Analysis data.

ings (16 percent in metro areas). Looking at the types of manufacturing in rural and urban areas further magnifies the "new" versus "old" economy differences. Rural areas tend to specialize in "old economy" routine mass production activities (textiles, apparel, furniture, metal working, rubber and plastics, stone, clay, and concrete) and value-added manufacturing (food, wood, and leather products), which involve low- to medium-skilled workers and relatively few managers and professionals. Urban areas specialize in more high-tech manufacturing (electronic, industrial and office equipment, instruments, chemicals, printing, publishing, and petroleum).

"High-tech" industries are providing most of the growth in manufacturing earnings, but rural areas' growth has been limited by their dependence on slower-growing value-added industry and routine technology manufacturing (see "Industry Definitions"). Between 1995 and 1998, 70 percent of growth in metro manufacturing earnings came from high-tech manufacturing industries (fig. 4), led by industrial machinery and equipment, electrical equipment, instruments, nonmotor vehicle transportation equipment (such as aircraft), chemicals, and printing and publishing (table 2). In nonmetro areas, high-tech industries accounted for half of manufacturing earnings growth. Industrial machinery and equipment was the leading contributor to nonmetro manufacturing earnings growth, as it was in metro counties, but the second- and third-largest contributors were value-added industries (food/kindred products and lumber/wood products), followed by four routine manufacturing industries (fabricated metal products, primary metals, rubber and plastics, furniture and fixtures). Value-added industries contributed 30 percent of nonmetro manufacturing earnings growth, compared with less than

Industry Definitions (based on 2-digit SIC code)

SIC code	Description
01 to 09	Agricultural production and services, forestry, fishing *
10 to 14	Mining
15 to 17	Construction
Value-added industries[1]	
20	Food and kindred products
21	Tobacco products
24	Lumber and wood products
26	Paper and allied products
31	Leather and leather products
Routine manufacturing	
22	Textile mill products
23	Apparel and other textile products
25	Furniture and fixtures
30	Rubber and miscellaneous plastics
32	Stone, clay, and concrete products
33	Primary metal industries
34	Fabricated metal products
371	Motor vehicles and equipment
39	Miscellaneous manufacturing industries
High-technology manufacturing[2]	
27	Printing, publishing, and allied
28	Chemicals and allied productions
29	Petroleum and coal products
35	Industrial machinery and equipment
36	Electronic and other electric equipment
37	Transportation equipment (except 371, motor vehicles)
38	Instruments and related products
Producer services[3]	
48	Communications
60 to 64, 67	Finance and insurance
73, 81, 87	Business/professional (legal and research) services
Transportation, utilities, and wholesale	
40 to 47	Transportation
48	Utilities
50 to 51	Wholesale trade
Recreation	
58	Eating and drinking places
70	Hotels and other lodging
79	Amusement and recreation services
84	Museums, art galleries, and botanical/zoological gardens
Consumer services	
52 to 59	Retail trade
72, 75 to 78, 80, 82, 83, 86, 88	Services other than business and recreation
Government and government enterprisess	
91 to 99	Federal civilian and military, State and local government, and post office

*BEA data also include employees of foreign governments and international organizations here.
[1]Based on *Rural Conditions and Trends*, Vol. 8, No. 3 (1998), pp. 44-46.
[2]Based on McGranahan in *Rural Development Perspectives*, Vol. 4, No. 3, pp. 7-12.
[3]Adapted from Beyers and Lindhal in *Rural Development Perspectives*, Vol. 11, No. 3, pp. 3-10.

10 percent in metro counties. Routine manufacturing industries contributed about 20 percent of 1995-98 manufacturing earnings growth in both metro and nonmetro counties, but the nonmetro economy was hurt by its dependence on textile and apparel industries, which lost a combined $1.7 billion in nonmetro real earnings between 1995 and 1998. Nearly 70 percent of the decline in apparel, textile, and leather product earnings occurred in nonmetro counties.

Can Rural Areas Close the Earnings Gap?

The urban orientation of high-tech and service businesses is not due to a lack of information or sophistication on the part of rural business owners. The ERS Rural Manufacturing Survey showed that rural manufacturers are just as likely as similar urban manufacturers to adopt the most advanced technologies and management practices appropriate to their industry. The issue is, rather, that the types of businesses that use advanced technologies and thrive on innovation are more likely to locate in urban than in rural areas.

Businesses in cutting-edge industries—computers, medicine, spacecraft, biotechnology, and the like—operate in rapidly changing, uncertain environments. They tend to maintain research staffs to create or at least keep abreast of new products and designs, and they make extensive use of outside consultants and advisors on finance, design, engineering, and marketing. These companies also tend to spawn new businesses that are set up locally. Knowledge, information, and ideas are important to these businesses, and they usually prefer urban or suburban locations where

Table 3
Nonfarm jobs, by industry and BEA region, 1998

Sector	1998 totals		1997-98 change		1991-98 average change	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
	Thousands		*Percent*			
Total nonfarm jobs	26,179	130,893	1.7	2.7	1.7	1.6
By industry:						
Agricultural services, forestry, fisheries, other[1]	523	1,520	2.3	4.1	3.3	3.6
Mining	346	509	-2.4	-0.7	-1.7	-1.6
Construction	1,616	7,183	3.8	5.0	3.3	2.8
Manufacturing	4,445	15,123	0.4	1.1	0.8	0.1
Transportation and public utilities	1,132	6,536	2.0	3.5	1.4	1.7
Wholesale trade	878	6,474	1.0	2.5	1.0	1.1
Retail trade	4,820	21,890	1.5	1.9	2.1	1.7
Finance, insurance and real estate	1,340	10,890	3.2	4.4	2.2	1.6
Services	6,689	43,209	2.8	3.7	2.5	2.7
Government and government enterprises[2]	4,390	17,558	1.0	0.8	0.7	0.3
Federal civilian	363	2,445	-0.1	-0.7	-0.6	-1.0
Federal military	368	1,730	-2.9	-3.5	-2.0	-2.1
State and local	3,659	13,383	1.6	1.6	1.3	1.0
State	981	3,805	1.0	0.7	0.9	0.7
Local	2,678	9,578	1.8	2.0	1.4	1.1
By BEA region:						
New England	1,169	7,230	2.4	2.2	1.2	1.1
Mideast	1,824	23,683	1.9	2.2	0.8	0.7
Great Lakes	4,464	21,357	1.5	2.0	1.7	1.4
Plains	4,073	7,751	2.0	2.6	1.7	1.8
Southeast	8,697	28,793	1.5	2.8	1.7	2.2
Southwest	2,481	14,306	2.0	3.9	1.8	2.6
Rocky Mountain	1,568	3,931	2.6	3.6	2.9	3.0
Far West	1,903	23,841	1.3	3.1	1.6	1.2

[1]"Other" are employees of foreign embassies working in the United States.
[2]Government enterprises are government agencies that cover a substantial portion of their operating costs by selling goods and services to the public and that maintain their own separate accounts—for example, the postal service.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Definitions

Bureau of Economic Analysis employment data provide annual establishment data on the number of jobs per county. The BEA data are taken primarily from administrative reports filed by employers covered under unemployment insurance laws and from information gathered by the Internal Revenue Service and the Social Security Administration. Jobs and earnings for these jobs are counted at the place of work; thus, residents of nonmetro counties who commute to jobs in metro counties are classified as metro workers. The data are based on a virtual universal count rather than a sample. The BEA data provide detailed information on the number of jobs and amount of earnings by industry at the county level. A shortcoming of the BEA data is the 2-year lag between when they are collected and when they are available for analysis. Data for 1998 were made available during summer 2000.

information about markets, new technologies, and product ideas is readily available.

Some commentators suggest that, despite the advent of information technology, face-to-face contacts remain important for gathering information and ideas. Those contacts are easier to come by in urban areas or other places where there are "agglomerations" of firms doing similar business, such as Silicon Valley, Austin, TX, or the Route 128 corridor in Massachusetts (high tech); Dalton, GA

Table 4

Earnings per nonfarm job, by industry and BEA region, 1998

	1998		1997-98		1991-98	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
	Dollars		*Percent*			
Earnings per nonfarm job	24,399	35,298	2.4	3.4	0.6	1.1
By industry:						
Agricultural services, forestry, fisheries, other[1]	13,063	18,171	4.9	4.7	-1.5	-0.3
Mining	41,907	65,736	2.4	5.6	1.2	5.5
Construction	26,252	36,162	3.2	3.1	0.3	0.5
Manufacturing	33,202	49,169	2.5	3.3	1.0	1.3
Transportation and public utilities	36,949	48,277	2.2	1.7	0.6	1.2
Wholesale trade	29,765	46,847	3.7	5.0	1.2	1.5
Retail trade	14,018	18,144	2.3	3.4	0.0	0.6
Finance, insurance and real estate	18,989	41,482	3.2	5.2	2.1	4.1
Services	19,663	31,757	3.0	4.1	0.9	1.1
Government and government enterprises[2]	30,725	40,774	2.1	1.8	0.7	0.8
Federal civilian	53,435	62,862	2.3	1.6	1.4	1.5
Federal military	26,429	34,931	2.1	1.8	0.7	0.9
State and local	28,903	37,494	2.1	2.1	0.7	0.7
State	32,212	37,431	2.2	1.5	0.4	0.6
Local	27,690	37,519	2.1	2.3	0.8	0.7
By BEA region:						
New England	26,340	38,643	2.1	3.8	0.5	1.3
Mideast	26,370	40,486	2.8	2.8	0.5	1.2
Great Lakes	25,433	35,046	2.6	3.2	0.7	1.2
Plains	22,581	32,424	2.6	3.2	0.7	1.2
Southeast	24,322	31,422	2.4	3.5	0.7	1.0
Southwest	22,831	33,740	2.2	4.2	0.3	1.4
Rocky Mountain	23,350	32,008	2.5	4.3	0.4	1.5
Far West	26,041	36,451	1.8	3.8	0.0	1.0

Note: Change from previous year is in real 1998 dollars. Previous year's earnings were converted to 1998 dollars using the chain-type personal consumption expenditures price index.

[1]"Other" are employees of foreign embassies working in the United States.

[2]Government enterprises are government agencies that cover a substantial portion of their operating costs by selling goods and services to the public and that maintain their own separate accounts—for example, the postal service.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

(carpets and textiles); Hartford, CT (insurance); or Wall Street (finance). Except where there are colleges and universities or amenities attractive to professional workers (attractive scenery, good weather, recreational or cultural opportunities, good schools), rural areas do not generally have a large enough professional-level workforce to attract or develop "new economy" industries.

As information technology develops, it may overcome the disadvantages of fewer face-to-face contacts so that consultants, financial professionals, accountants, and software developers can live and work in rural areas. Still, rural areas must offer natural amenities, good schools, access to transportation networks, and other infrastructure to attract high-wage professionals who work in "new economy" industries. An educated, trainable workforce is also important to attract service and high-tech jobs. Without these jobs, the earnings gap between urban and rural America is likely to continue widening. RA

Table 5

Real earnings per nonfarm job, 1969-98

	Nonfarm earnings			Metro-nonmetro earnings gap[1]	Earnings ratio[2]	Change from previous year	
	U.S.	Nonmetro	Metro			Nonmetro	Metro
	1998 dollars				*Percent*		
1969	26,558	21,159	27,691	6,532	76.4	NA	NA
1970	26,906	21,471	28,047	6,576	76.6	1.5	1.3
1971	27,409	21,933	28,573	6,640	76.8	2.1	1.9
1972	28,209	22,590	29,411	6,821	76.8	3.0	2.9
1973	28,346	22,918	29,502	6,584	77.7	1.5	0.3
1974	27,756	22,685	28,836	6,151	78.7	-1.0	-2.3
1975	27,789	22,950	28,825	5,875	79.6	1.2	0.0
1976	28,612	23,884	29,640	5,756	80.6	4.1	2.8
1977	28,859	23,931	29,928	5,997	80.0	0.2	1.0
1978	29,171	24,322	30,215	5,893	80.5	1.6	1.0
1979	29,044	24,284	30,059	5,774	80.8	-0.2	-0.5
1980	28,549	23,734	29,564	5,830	80.3	-2.3	-1.6
1981	28,421	23,482	29,456	5,974	79.7	-1.1	-0.4
1982	28,433	23,213	29,521	6,308	78.6	-1.1	0.2
1983	28,693	23,318	29,804	6,486	78.2	0.5	1.0
1984	29,336	23,846	30,457	6,611	78.3	2.3	2.2
1985	29,647	23,892	30,801	6,909	77.6	0.2	1.1
1986	30,017	23,888	31,225	7,337	76.5	0.0	1.4
1987	30,230	23,604	31,533	7,928	74.9	-1.2	1.0
1988	30,543	23,683	31,881	8,198	74.3	0.3	1.1
1989	30,351	23,444	31,700	8,256	74.0	-1.0	-0.6
1990	30,332	23,190	31,732	8,542	73.1	-1.1	0.1
1991	30,327	23,119	31,756	8,637	72.8	-0.3	0.1
1992	31,374	23,667	32,923	9,257	71.9	2.4	3.7
1993	31,280	23,654	32,822	9,167	72.1	-0.1	-0.3
1994	31,310	23,670	32,870	9,200	72.0	0.1	0.1
1995	31,326	23,414	32,943	9,529	71.1	-1.1	0.2
1996	31,598	23,389	33,267	9,878	70.3	-0.1	1.0
1997	32,398	23,823	34,130	10,306	69.8	1.9	2.6
1998	33,482	24,399	35,298	10,900	69.1	2.4	3.4

Note: Earnings were converted to 1998 dollars using chain-type personal consumption expenditures price index.
NA = Data for years prior to 1969 were not available to compute change.
[1]Earnings gap is the difference between metro and nonmetro earnings in 1998 dollars.
[2]Earnings ratio is nonmetro earnings as a percentage of metro earnings.
Source: Calculated by ERS using data from the Bureau of Economic Analysis and 1993 metropolitan classification.

Regions (Bureau of Economic Analysis)

New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Mideast—Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania.

Great Lakes—Illinois, Indiana, Michigan, Ohio, and Wisconsin.
Plains—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

Southeast—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

Southwest—Arizona, New Mexico, Oklahoma, and Texas.

Rocky Mountain—Colorado, Idaho, Montana, Utah, and Wyoming.

Far West—Alaska, California, Hawaii, Nevada, Oregon, and Washington.

For Further Reading . . .

ERS Rural Industry Briefing Room: http://www.ers.usda.gov/briefing/Industry

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